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TANGANYIKA TERRITORY

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for the year ended 31st December

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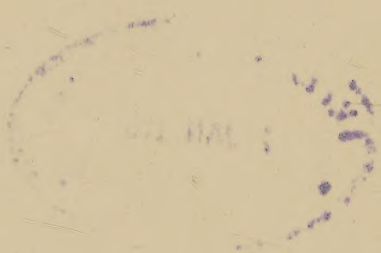

TANGANYIKA TERRITORY

DEPARTMENT OF AGRICULTURE
ANNUAL REPORT, 1944

GENERAL

In a country of the size of Tanganyika it is obvious that it would be extremely improbable that similar climatic conditions should prevail throughout the whole Territory in any one year and 1944 amply illustrated this condition of affairs. Very good growing weather was experienced in the Southern Highlands Province and also in the greater part of the Central Province.

The Eastern Province had only an average season while the Southern, Lake and Western provinces suffered severely from a shortage of rain. In the Tanga and Northern provinces, after very poor short rains at the end of 1943, the 1944 rains started normally but in many areas were unduly prolonged and caused great difficulty in getting the grain crops harvested.

Nevertheless, although these conditions resulted in the poorest cotton crop recorded for many years and in the practical failure of the territorial rice and groundnut crops, the Territory as a whole found itself for the first time in recent years to be self-supporting as far as food crops are concerned.

The work of the District Production Committees in the Arusha, Iringa and Moshi areas has once again been of the utmost value and new committees have operated in the Kilosa, Korogwe and Morogoro areas. The enactment of the Increased Production of Crops Ordinance has greatly extended their responsibilities and orders have been issued to farmers for the planting of some 34,500 acres, principally of wheat, maize and beans.

Under the circumstances of war we have been fortunate in obtaining considerable supplies of ordinary farm machinery although these have been considerably below normal peace-time requirements. On the other hand the imperative necessity for increasing the output of sisal to the maximum has resulted in large consignments of locomotives, trucks and other equipment being made available so that it is anticipated the industry will shortly be adequately equipped for all-out one hundred per cent production.

Labour, as had been anticipated, has again proved a limiting factor to production and as a consequence it has been found necessary to continue the limitation of new plantings of coffee, papaw, pyrethrum, sisal and tobacco.

The marketing of most crops remains controlled and the system of guaranteed prices has been continued. Now, however, that it is becoming apparent that, apart from some catastrophic invasion of locusts or for some other unforeseen reason, East Africa should be more than self-supporting as regards food it will be necessary to consider most carefully the continuation

of these guaranteed prices—otherwise governments may find themselves committed very heavily over the purchase of crops which are of poor keeping quality and which may be surplus to local requirements.

NOTES ON THE CHIEF EXPORT CROPS

A comparative table showing amounts and values of the chief crops exported in each of the last four years is given in the annexure to this report.

Sisal.—Production for the year amounted to 111,213 tons—the greatest amount ever produced in the Territory. The amount exported was 111,848 tons, valued at £2,962,729. This most satisfactory state of affairs is a reflection of the hard work put in by all sisal growers backed by a strong organization in the shape of the Tanganyika Sisal Growers' Association.

The appointment of a Sisal Advisory Officer contributed in no small measure to this result and his assistance was of especial value in the procurement of new machinery and its rationalization. The sisal industry is now organized to reach its maximum factory output during 1945 although there is still a considerable leaf potential over and above the present target figure.

The sisal industry, so vital to the prosperity of Tanganyika, is only now getting on to its feet. At the outbreak of war, with the prospect of the, at any rate, temporary loss of the greater part of its customers on the continent, the outlook was indeed gloomy and it was found necessary to limit production by some 25 per cent in November 1940.

The entry of Japan into the war and the almost immediate loss of Manila and Java made Tanganyika sisal one of the most vital of war products and the arrangements made for maximum production have resulted in the industry as a whole becoming more efficient producers than hitherto. At the same time the general standard of quality has steadily improved.

Coffee—Mild.—A report for a calendar year must of necessity in Tanganyika cover parts of two crops of mild coffee, as the production year extends over the period July-June. During 1944 conditions for production were average and the exports amounted to 5,952 tons and were valued at £451,135.

As in the years immediately preceding 1944 the whole crop was purchased by the Ministry of Food. In June 1943, the Tanganyika Coffee Growers' Association were appointed the Government agents for the purchase of the mild coffee crop and, although they have not been without their teething troubles, it may be said, the Association have performed their work both to the satisfaction of Government and the Ministry of Food and also and especially of the producers.

For the first time all Tanganyika mild coffees were classified and the results of this classification on the whole were pleasantly surprising as to the potential value of Kilimanjaro coffees. From the fact, however, that over 88 per cent of the coffee from the Coffee Experiment Station at Lyamungu was placed in the first three classes while only 23 per cent of non-native production and less than 2 per cent of African coffee fell into these classes, there is not the slightest doubt that when peace-time conditions return a vast improvement in quality can be quickly and easily effected. During the season the higher grades and qualities were valued at over £100 per ton.

Coffee—Hard.—The neglect of their coffee by African growers in Bukoba has for some years been a source of great anxiety to Government. More recently special efforts have been made to get growers to realize the importance of good cultural treatment and especially of the value of a heavy grass mulch. This campaign has proved entirely successful and the exports for 1944 are given as 9,609 tons of a value of £401,197—an increase in tonnage of 60 per cent on 1943.

The Bukoba Hard Coffee Control continued to function throughout the year with its usual efficiency.

Cotton.—Cotton exports were equivalent to 33,284 bales of 400 pounds valued at £563,379; actual production was 24,961 bales as against an average of 55,199 in the preceding five years. The 1944 season produced the smallest crop for many years. This is attributable to another drought year, the second in succession, resulting in delayed planting and the need for the greatest concentration of effort upon the production of food crops. The crop in parts of the Eastern Province also suffered from exceptionally heavy infestations of insect pests. The distribution of the crop by provinces was approximately as follows: Lake 17,435, Eastern 5,750, Northern 810, Tanga 225, Southern 741. The bulk of the cotton seed exported was supplied to the Uganda mills so that the crushed seed, after the extraction of the oil, might be shipped to Kenya for use in the preparation of locust bait. Total exports of cotton seed amounted to 5,002 tons, valued at £15,594.

The method of marketing was slightly modified as the result of the agreement between the Governments of India and East Africa for the sale to India of all lint cotton in excess of the Ministry of Supply's requirements, at prices agreed to for the various growths. It so happened that the Ministry of Supply did not call for cotton from the Territory, thus the whole crop was sold to India. The Exporters' Groups were retained but instead of the cotton being disposed of to the members they acted only in the capacity of exporting agents on behalf of the Indian importers. The Indian authorities were responsible for the allocation of the quantities to be handled by each exporter and the amounts to be shipped to the various importers. The price paid to the producer for seed cotton was increased to 12½ cents per pound for first grade in the Lake Province, and 30·89 cents per kilo less transport allowances in the other cotton growing areas. Profits accruing to Government are credited to the Tanganyika Agricultural Development Fund and for the 1944 season are expected to reach £284,000.

On the whole it is remarkable that the varying priorities of production for agricultural produce have resulted in so little interference in the economy of farmers, both African and non-native. In the case of cotton, however, the increase in wages for sisal and rubber production and the high values of food sold locally for and to labourers engaged in the production of these priorities has put cotton production completely out of economic gear and as a result Government found it necessary during the year to endeavour to stimulate cotton production by guaranteeing prices to growers at the rate of 12 cents per pound of seed cotton.

Even this incentive has not proved adequate and I view with grave concern the continued high prices which are being realized for native grain crops which not only have increased the cost of coffee, sisal, pyrethrum, tea and rubber to His Majesty's Government at home but have also rendered cotton production completely unattractive.

Tanganyika continues to be indebted to the Uganda Cotton Exporters' Group and especially to their Chairman, Mr. R. Dakin, in the marketing of our cotton to India.

Groundnuts.—The sad story of 1943 was even sadder in 1944—the continued dry weather in the principal groundnut producing areas of the country resulted in a new low level export of only 627 tons valued at £9,918.

The effect of two poor seasons in succession will take some time to recover from and it is not anticipated that groundnut exports will reach the average export figure of 12,000 tons before 1947.

Sesame.—The main rains in the Southern Province, where the great bulk of Tanganyika sesame is produced, tailed off by the end of March and the crop was naturally short. Export 1,712 tons, value £24,420.

The depredations of snails still limit the volume of the crop very considerably and apart from hand picking there appears to be no solution to this scourge.

Copra.—The production of copra was estimated at 9,232 tons (Eastern Province 4,638 tons, Tanga Province 3,494 tons and Southern Province 1,100 tons) but the exports of copra were only 1,368 tons and of oil 794 tons.

The expansion of the internal market for edible oil and soap is due partly to a shortage of other cooking fats (such as ghee and simsim oil) and also, and especially, it is hoped to a gradual improvement in the standard of living of the African.

The quality of our local copra remains deplorable but legislation is in preparation which, it is hoped, will have the effect of commencing the cleansing of this Augean stable.

Grains, etc.—It is not considered that Tanganyika will ever be regarded as a large exporter of grain crops. In fact Government's chief concern for many years must be to concentrate attention on relatively high-priced plantation crops such as sisal, tea, coffee, pyrethrum, papain, etc., and on certain African crops such as cotton, oilseeds and rice. At the same time our policy with what is now commonly called the "African staple" must be to produce intensively rather than extensively so that the fertility of our never-rich grain lands can be built up to a state of at least a moderate fertility.

Once the necessity for full war-time production becomes no longer a first priority, the rehabilitation of all native lands must be our watchword.

The export figures for maize, rice and millets will be found in the annexure. The rice crop was a great disappointment—thousands of acres of prepared land in the Lake Province were never planted owing to lack of rain and in other rice growing areas of the Territory the rice fields completely dried off owing to their early termination.

The Northern Province Wheat Scheme, although badly hit by the weather, got going and produced 46,455 bags of wheat, an average of about three bags to the acre. The rest of the Northern Province produced 43,440 bags—a record crop. During the year the construction of a wheat flour mill was commenced at Arusha—another way of saying that wheat has at last established itself as a permanent crop in the Northern Province.

The cultivation of chickpea (*Cicer arietinum*) continues to expand and in spite of the chickpea blight (*Ascophyta rabiei*) the production which was entirely marketed in the Lake Province amounted to 1,233 tons.

Tea.—The year 1944 was a bad one for tea and the poor rains limited the flush to such an extent that with a slightly increased acreage in bearing production dropped from 1,288,554 pounds of made tea to 1,149,049 pounds.

Sugar.—Sugar production was approximately constant at 7,500 tons. Exports 4,293 tons.

The company which produces sugar in Tanganyika has been anxious over the depredations of a white borer (*Cochliotis melolonthordes*). Plans for dealing with this pest, which were submitted to the Secretary of State's Advisers for approval, have been drawn up and it is understood have been put in hand by the company.

Tobacco—Flue-cured.—Difficulties in obtaining tobacco leaf from overseas for the local manufacture of cigarettes have created a large war-time flue-cured tobacco industry amongst non-natives in the Iringa District and the production has increased in spectacular fashion so that during 1944 a crop in the neighbourhood of 1,432,300 pounds was disposed of.

The growers through the Non-Native Tobacco Board imposed a cess on their production and with the funds so obtained erected a new tobacco grading shed which was brought into operation for the first time.

Even so, as long as certain of the buyers are prepared to take almost any quality of trash which is offered, the incentive to growers to limit the size of their crop to quality leaf does not exist.

It is unlikely that the present easy market conditions will last long and this valuable industry will have to improve its standards greatly even to retain its local outlets.

Tobacco—Fire-cured.—The Songea crop, owing to unpropitious weather, was the smallest for some years, only 169 tons being sold, of which 125 tons went to the United Kingdom and the rest was consumed locally in East Africa. The crop is purchased and processed by an African co-operative society whose finances have been built up on a really solid foundation. The only criticism which could be levelled at them might be that the present organization of the factory compels the manager to occupy too much of his time over executive work and accounts instead of allowing him to stay in his proper place, the factory.

The rest of the tobacco crop is made up of coil tobacco which in these days commands fantastic prices.

Pyrethrum.—The production of pyrethrum is steadily increasing and 1945 should be a peak year as all the acreage planted up to fulfil the contract with the Ministry of Supply will be in full bearing. Tanganyika's permissible acreage under this contract is 5,342.

The future of this crop, except in areas where the annual production is above 800 pounds per acre, is obscure. To a large extent it will depend on the price at which the new insecticide D.D.T. can be marketed and to the extent to which it is available. After the contract with the Ministry of Supply

is terminated at the end of 1947 it is probable that pyrethrum, in areas of low production, will at best form a part only of the activities of a mixed farm and will not be the only crop produced as is very often the case at present.

Other Crops.—On account of scarcity of food and shortage of labour it was necessary to restrict the planting of papaws, intended for the production of papain, early in 1944. Production, however, rose to 67½ tons, valued at more than £1,000 a ton.

The appointment of one agent to purchase and market the Muheza orange crop has proved successful. Wastage was eliminated as far as is possible with such a perishable crop and growers received more than twice as much for their produce than they did formerly. There was only a half crop and the supply was very much under the war-time demand. Sale prices were not, in spite of the short crop, increased as practically all the oranges available were purchased by the Military Forces.

Over two and a half tons of onion seed were produced on small experimental plots in the Mbulu District. This production was necessitated by intimations from India and Egypt that no further supplies would be available during the war.

Bees-wax.—Six hundred and seven tons of bees-wax were exported during the year, valued at £110,276. The actual production is estimated at 540 tons. This is a considerable reduction on the figure of the previous year and reflects the general paucity of the 1943 rains when the foundations for the crop were laid down. The greatest reduction was in the Central Province. Production by provinces was :—

Western	...	...	...	294 tons
Central	...	...	...	90 ,,
Southern	...	...	...	112 ,,
Eastern	...	...	...	15 ,,

In addition 175 tons of honey were exported.

Gum.—Exports of gum arabic reached a new high level with 2,370 tons exported during the year. This big increase is accounted for by the fact that unstable conditions in the main overseas market forced prices up to a high level and also because India permitted free import by country craft (dhows). Subsequently, due to a shortage of this commodity in India, licences were issued for large quantities to be shipped by steamship. As a result stocks which had been accumulating for two to three years were cleared. Gum copal exports also increased from 82 tons in 1943 to 197 tons in 1944.

Vermin, Pests and Diseases.—Desert locusts which had arrived from the north in force during the previous November overran the Territory north of the Central Railway during the first three months of the year. Egg laying took place in the Tanga Province during January and in a limited area of the Central Province, west of Dodoma, during February. Successful anti-hopper campaigns were carried out. Late in February immature swarms arrived in the Northern and Tanga provinces from the north and proceeded to wheel across the Territory to the Lake Province. There was a hopper campaign on an increased scale during April in the Northern Province from the foothills of the Pare Mountains in the east, across Masailand to the Mbulu District in the west. By July most of the immature swarms had left. In October mature swarms once more appeared in north-east Tanganyika from the north and egg

laying took place along the Kenya border in November. Hoppers emerged in Tanga Province and on the slopes of Kilimanjaro in December, while further swarms penetrated as far as the Central Province.

Members of the International Red Locust Control carried out control measures against hopper bands of the red locust in the Rukwa outbreak centre during February and March.

There was a widespread outbreak of the army worm, beginning in the south during January and ending in the north in March. Considerable damage was done in some areas to crops and grazing.

Wheat in the Northern Province suffered fairly severely from both Stem rust (*Puccinia graminis*) and Yellow rust (*P. glumarum*), the latter occurred at all elevations. Potato blight (*Phytophthora infestans*) was recorded from Kasulu in the Western Province and from Mbeya in the Southern Highlands Province. This disease is now present in all the important potato-growing areas in the Territory. The bacterial ring rot of potatoes recently recorded in Kenya was found in one field in the Usambara Mountains in a crop grown from imported seed. Blight (*Phytophthora infestans*) of tomato has appeared in the Territory. Root rot and fruit rot of papaw were further investigated ; parasites (*Pythium aphanidermatum* and *Phytophthora parasitica* respectively) were isolated and grown in pure culture. A virus disease of sweet potato has been observed in the Lake Province, causing considerable loss of crop. This disease is also present in the Belgian Congo and in Uganda. A number of new records were made of diseases of less important crops, and of fruit, vegetables and ornamentals. These are dealt with in Departmental Circulars. A Supplement to the Revised List of Plant Diseases in the Territory was published in July.

Agricultural Development Fund.—During the last year the sale and export of many crops have been controlled and in the case of certain of them, such as hard coffees and of cotton, Government has controlled the prices which exporters may receive. As a result considerable profits which, including sales now in sight, amounting to almost £500,000, have been made and paid into a special Agricultural Development Fund.

The disposal of this fund is under control of Government and already disbursements have been sanctioned for the training of African Agricultural Instructors, an Agricultural Training of Indian youths and for the Malcolm Scheme for the Development of Sukumaland.

SOIL CONSERVATION

It is a pleasure to record that the greatly extended area of pyrethrum planted during 1944 in the Southern Highlands has been laid out in an exemplary manner on contours. A good deal of protective banking has also been carried out in the Northern Province on farms under the control of the Custodian of Enemy Property. Many farmers in the Iringa, Arusha and Moshi districts, where much remains to be done, will it is hoped follow these examples when conditions permit. In native areas good progress is reported from the Uluguru Mountains where following the construction of a number of demonstration areas having contour terraces, tie ridges and storm drains there has been a widespread change over from flat to contour ridge cultivation. More banking has been done in the Central Province while in the Lake Province contour hedge planting continues. The latter practice has also been extended

in the Usambaras two hundred and twenty miles of live hedges having been accurately contoured to serve as guide lines and in the Moshi District the weed row and the small earth bank continue to be used with at any rate the partial success which justifies such measures until the time comes when the staff position will enable more lasting protection to be established.

EXPERIMENTAL WORK

Following on the completion of the first cycle of certain of the experiments at the Sisal Research Station, Ngomeni, it was decided that a number of external field trials should be laid down for the purpose of testing some of the results on different soil types in the Central Line areas. Two such sites were selected and preparation of the land began before the end of the year. On the Ngomeni station itself results of considerable practical value have been obtained from the spacing trials which indicate the importance of a high plant population per acre and the desirability of clean weeding during the first two years. The negative results of the fertilizer trials are disturbing, for while it has been found that the yield of sisal from all experiments in the second cycle declines none of the dressings of nitrogen, phosphate or potash so far tested have effected any substantial improvement. It is intended to publish a fuller account of these experiments at an early date.

At the Ukiriguru Experiment Station cotton selection and strain testing has proceeded with the promise of a jassid resistant cotton, of lint length not less than the present generally cultivated variety, being produced before long. The manuring and rotation trials of this station are being fully maintained and a useful series of millet varieties and rice selections are under observation. More work has been done on grasses suitable for pasture and grass fallows in rotation with cotton. At the proposed site for the Cotton Station at Ilonga the insect and plant development records were continued and cotton cultivation on greater scale was carried out to an extent which enabled the decision to be made that Ilonga is a suitable locality to serve the eastern cotton growing areas.

The Entomologist continued his experimental work on the use of dusts in grain storage and promising results were obtained in fairly large-scale trials with a proprietary inert dust, and on a small-scale with a number of local minerals.

Dar es Salaam,
3rd May 1945

R. W. R. Miller,
Director of Agriculture

DETAILS OF THE CHIEF EXPORT CROPS FOR THE PAST FOUR YEARS

PRODUCT		Maximum output for export prior to 1944	1941		1942		1943			1944		
			Amount	Value per ton f.o.b.	Amount	Value per ton f.o.b.	Amount	Total value	Value per ton f.o.b.	Amount	Total value	Value per ton f.o.b.
	Year	Tons	Tons	£ s.	Tons	£ s.	Tons	£	£ s.	Tons	£	£ s.
Sisal	1942	136,237	75,195	19 14	136,237	19 6¼	96,598	2,118,127	21 18½	111,848	2,962,729	26 9¾
Sisal (manufactured)	1936	2,325	15	39 4	26	46 15½	30	1,670	55 13¼	8	463	57 17½
Cotton lint ...	1941	13,106	13,106	60 2	8,009	80 0¼	7,002	624,079	89 2½	5,944	563,379	94 15½
Coffee	1935	18,588	13,667	32 15½	14,828	44 3½	10,898	553,741	50 16¼	15,561	852,332	54 15½
Groundnuts ...	1936	22,786	11,312	13 14¼	13,193	16 5½	1,752	27,956	15 19	627	9,918	15 16¼
Hides and Skins ...	1939	4,286	3,512	60 1¾	2,993	67 19	2,339	163,222	69 15½	*2,871	198,580	69 3½
Copra	1928	9,318	3,620	9 10¼	3,700	12 0½	2,816	44,199	15 14	1,368	22,211	16 4¾
Sesame	1938	5,241	3,018	11 0½	3,563	12 18	3,180	45,236	14 4½	1,712	24,420	14 5
Rice	1941	17,965	17,965	11 18	17,948	13 3	4,673	66,182	14 3¼	4,494	75,562	16 16¼
Millet and Mtama ...	1928	7,732	3,280	5 1½	3,348	5 1¾	913	5,749	6 6	1,501	13,123	8 14¾
Maize	1934	2,901	940	3 18	713	4 8	9	78	8 13¼	—	—	—
Bees-wax	1937	738	712	162 10	348	165 12¾	586	102,603	175 1¾	627	110,276	175 17½
Tea	1943	503	340	135 13½	483	137 16	503	69,560	138 5¾	328	45,358	138 5¾
Sugar	1941	5,454	5,454	14 3	4,380	17 4¾	1,813	34,870	19 4¾	4,293	70,737	16 9½
Gums, Copal and Arabic	1941	1,405	1,405	33 5½	904	44 7¼	390	21,916	56 4	†2,567	114,657	44 13¼
Ghee	1942	1,385	1,125	73 4	1,385	81 9	750	67,431	89 18	400	34,847	87 2½
Wheat	1941	2,475	2,475	10 8¼	2,166	11 0	1,887	25,722	13 12¾	1,960	30,113	15 7¼
		252,445	157,141	24 1	214,224	23 13½	136,139	3,972,341	29 3½	156,109	5,128,705	32 17

*Includes 2,408 tons of hides and 694,380 skins weighing at approximately 1,500 per ton. †New highest export tonnage—

Pyrethrum: Export 1943—306 tons valued at £36,292 f.o.b. or average of £118 0s. per ton f.o.b.
,, Export 1944—396 tons valued at £51,662 f.o.b. or average of £130 9s. per ton f.o.b
Coconut oil: Export 1943—815 tons valued at £33,185 f.o.b. or average of £40 14¼s. per ton f.o.b.
, Export 1944—794 tons valued at £36,562 f.o.b. or average of £46 0s. per ton f.o.b.